



Increasing Diversity in Science

Zélia Ludwig- GSCNano/UFJF



https://www.ictp-saifr.org/diversidade_stem/



https://www.ictp-saifr.org/diversidade_stem/



https://www.ictp-saifr.org/diversidade_stem/

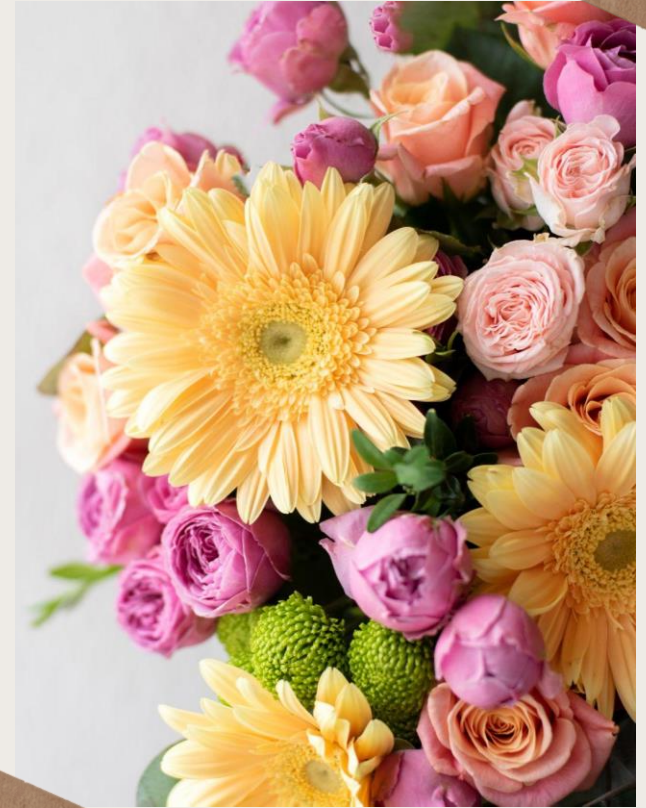


<https://www.ictp-saifr.org>

Scissor Effect

The percentage of women decreases disproportionately as their career advances in relation to men.

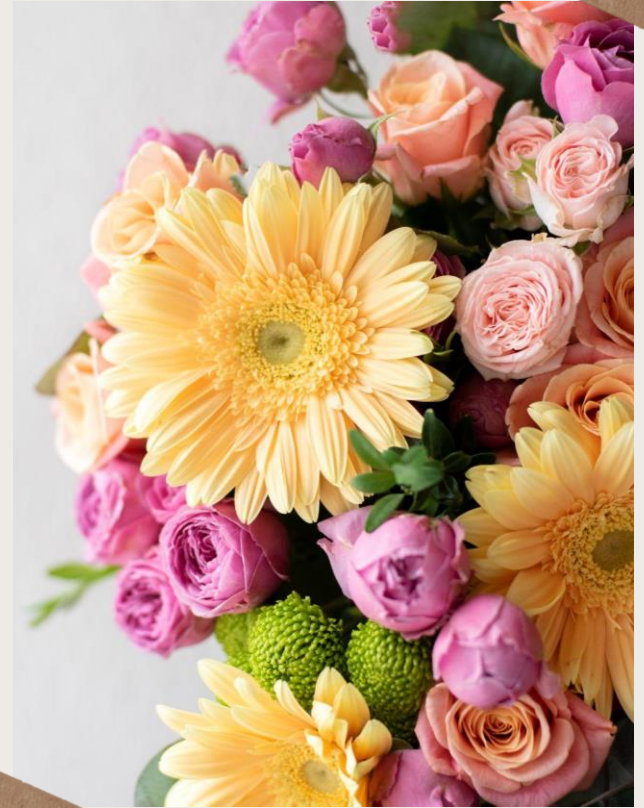
We need support policies aimed at female scientists that guarantee the entry, permanence and presence of women in spaces of visibility and decision-making.



Scissor Effect

Female participation in various areas of knowledge has grown, according to an IPEA study published in 2020 showing that women made up around 54% of doctoral students in Brazil, which represents an impressive increase of 10% in the last two decades.

(https://fapes.es.gov.br/Media/fapes/Editais/Edital%20Fapes%20014_2022_MulherES%20na%20Ciência_06Junho202-1.pdf)



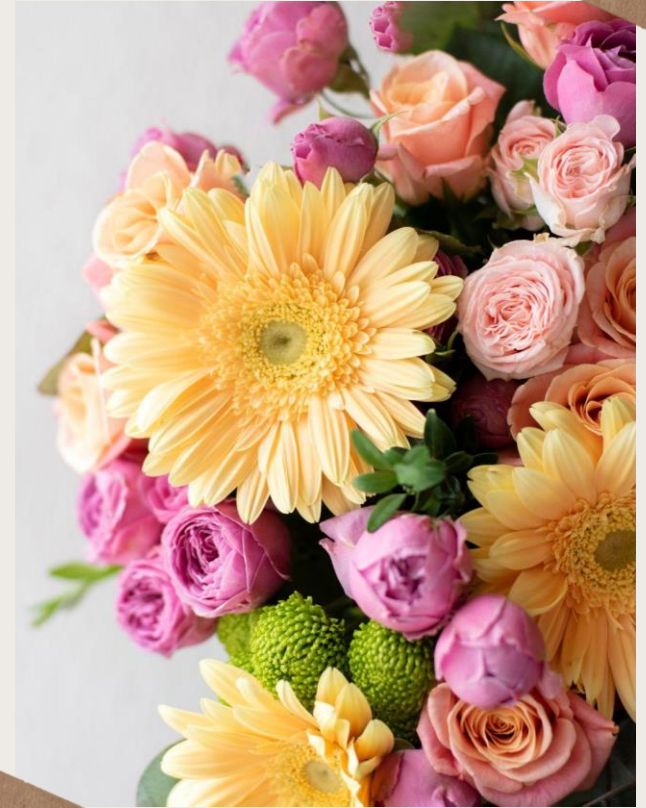
Scissor Effect

However, the fight for equal gender and racial opportunities is a long journey.

When it comes to women's representation in Science, Technology and Innovation, they are much smaller in number.

According to the United Nations Educational, Scientific and Cultural Organization (Unesco), only 28% of researchers in the world are women, meaning there are still a low number of women in scientific fields.

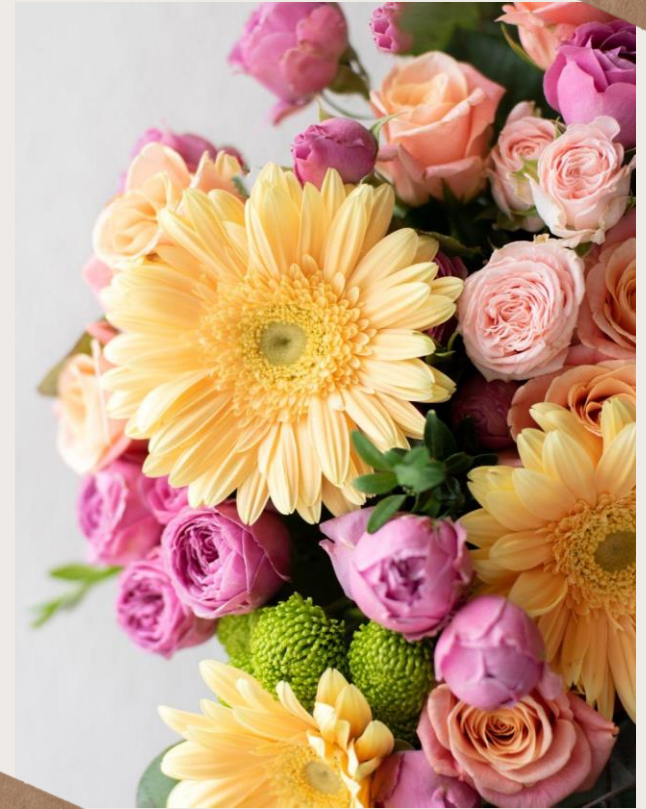
(https://fapes.es.gov.br/Media/fapes/Editais/Edital%20Fapes%20014_2022_MulherES%20na%20Ciência_06Junho202-1.pdf)




Scissor Effect

“Women are the majority in scientific initiation scholarships, with 60% participation, but only 35% of productivity scholarships, which are achieved at the top of the career”

<https://ufmg.br/comunicacao/noticias/pesquise-como-uma-mulher-convoca-a-ministra-luciana-santos-em-conferencia-na-ufmg>







Women represent only 36% of productivity fellows, 31% of current CA members.

In other instances, such as the Research Support Foundations (FAPs), only 14% of elected presidents were women.

(https://www.parentinscience.com/_files/ugd/0b341b_a20f5420b33b43a898e8c2faee889e23.pdf)





Parent in Science Movement has defended greater diversity within Brazilian academia and science, so that we have a more inclusive, fair and efficient science.

Although women represent 57% of undergraduate students and 53% of postgraduate students in Brazil, as the scientific career progresses, the proportion of women decreases drastically: scissors effect or vertical segregation.”

(https://www.parentinscience.com/_files/ugd/0b341b_a20f5420b33b43a898e8c2faee889e23.pdf)





Contato: parentinscience@gmail.com

Siga nossas redes sociais:





Adriana Neumann
UFRGS



Zelia Ludwig
UFJF



Pâmela B. Mello-Carpes
UNIPAMPA



Livia Kmetzsch
UFRGS



Leticia de Oliveira
UFF



Ida Schwartz
UFRGS



Giulia Wiggers
UNIPAMPA



Fernanda Staniscuaski
UFRGS



Rossana Soletti
UFRGS



Fernanda Werneck
INPA



Camila Infanger
USP



Fernanda Reichert
UFRGS



Alessandra Tamajusuku
UNIPAMPA



Felipe Ricachenevsky
UFRGS



Alessandra Brandão
UEPB



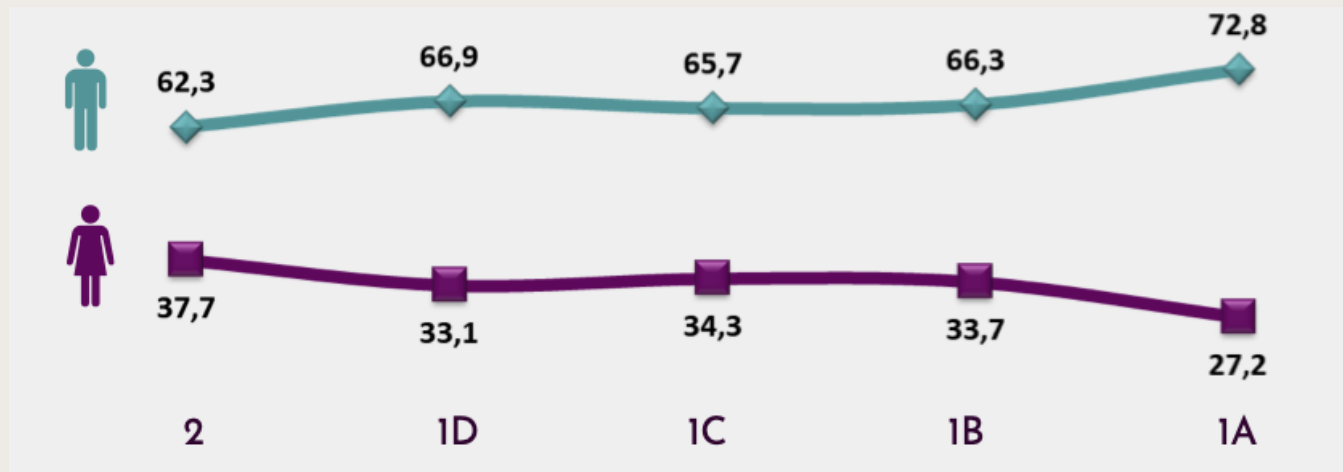
Eliade Lima
UNIPAMPA



Eugenia Zandonà
UERJ



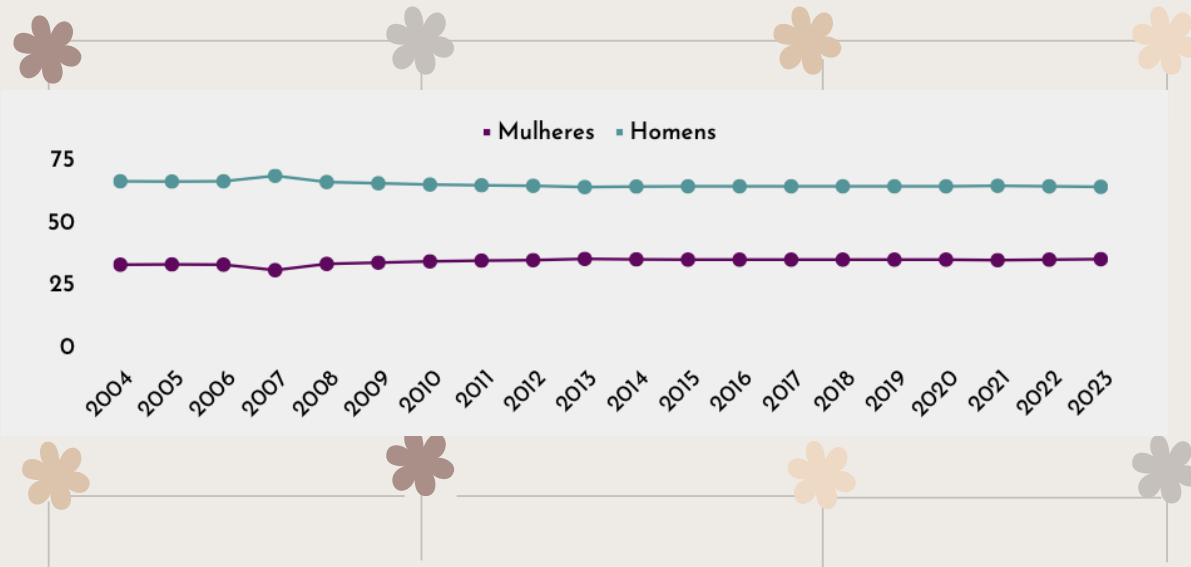
Scissor Effect



As bolsa PQ – Uma análise do PIS-2023 e CNPq

https://327b604e-5cf4-492b-910b-e35e2bc67511.filesusr.com/ugd/Ob341b_91eeb05b5038438ba68e0a88ab29bbc3.pdf

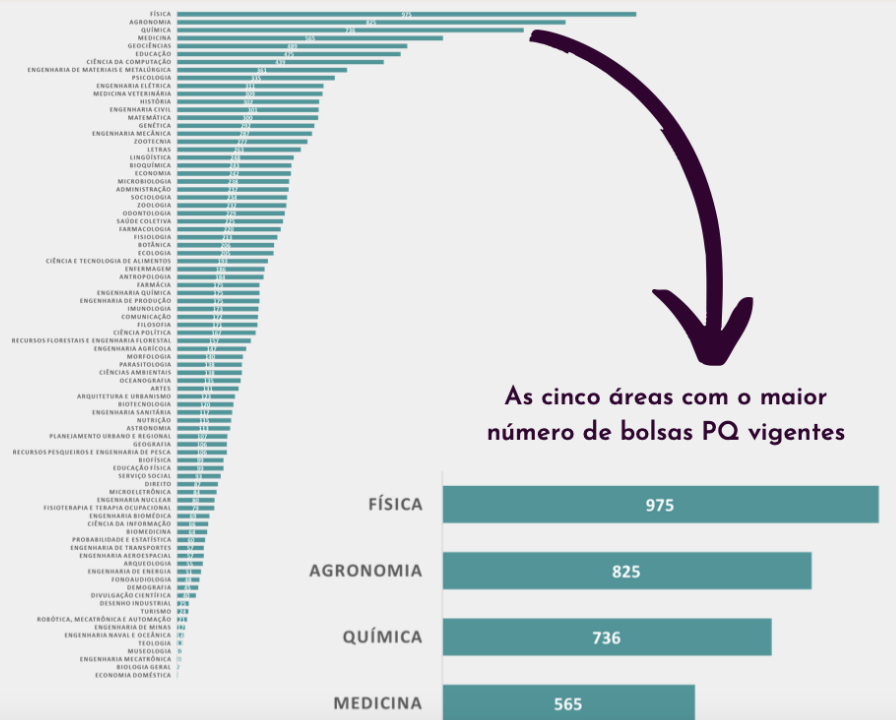
Historical Analysis



The participation of women in PQ scholarships **has not changed** significantly in 20 years: 33.4% in 2004 and 35.6% in 2023.

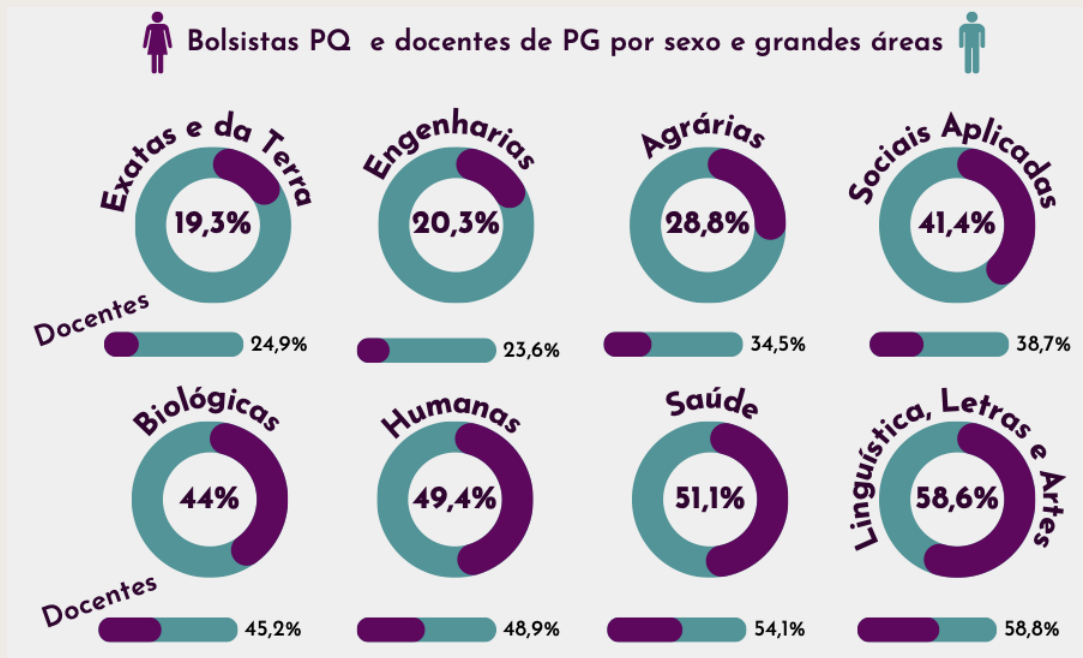
As bolsa PQ – Uma análise do PIS-2023 e CNPq

Distribution of PQ scholarships in force in July 2023, by area of knowledge. Highlighting the five areas with the highest number of PQ scholarships (all levels).



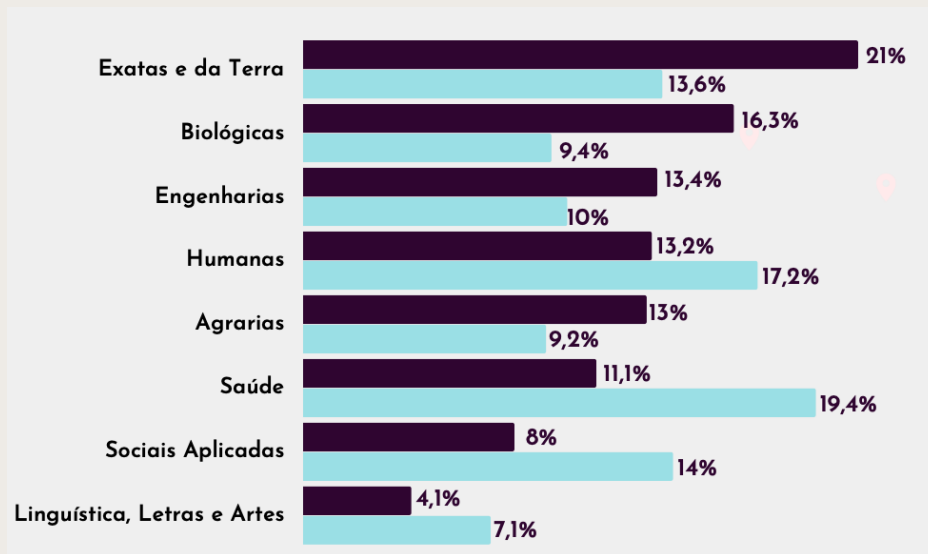
As bolsa PQ – Uma análise do PIS-2023 e CNPq

Distribution by sex and large area



As bolsa PQ – Uma análise do PIS-2023 e CNPq

Distribution of PQ scholarships in force in July 2023, by major area of knowledge compared to the distribution of permanent professors working in postgraduate programs.



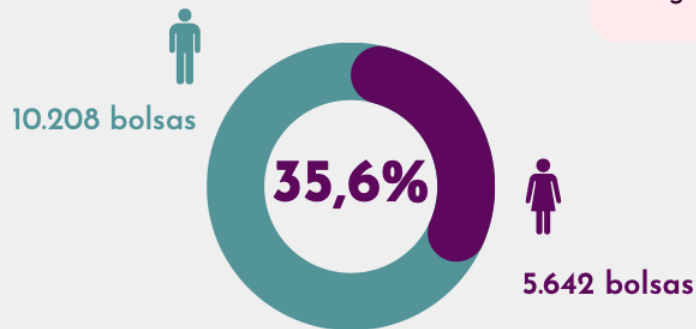
Distribution by sex of the scholarship holder (July 2023)

Realizamos a análise da distribuição das bolsas PQ considerando o sexo dos bolsistas. Observamos uma grande discrepância entre a participação de homens e de mulheres entre os bolsistas (Fig. 11), que não condiz com a proporção de mulheres que atuam como docentes na pós-graduação.

Mulheres representam

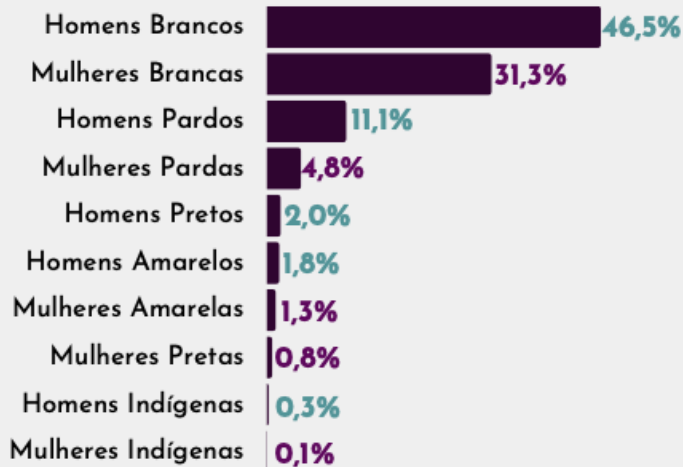
42%

dos docentes de pós-graduação no Brasil

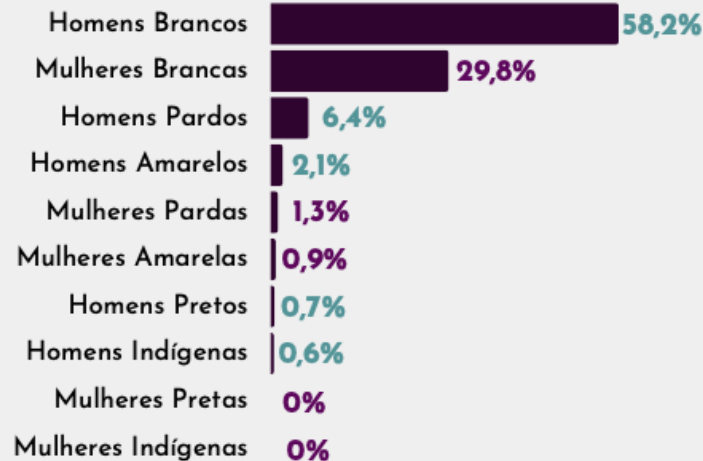


Distribution by race and sex:

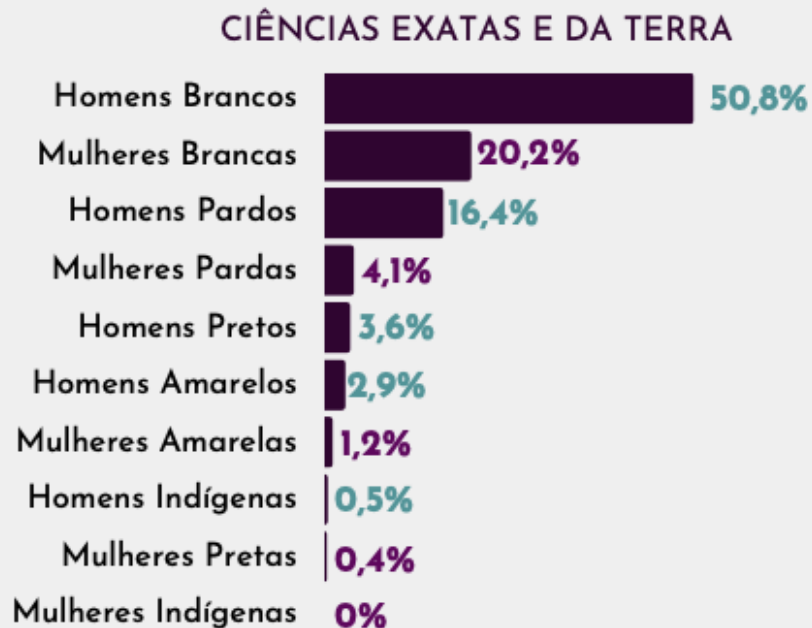
Distribution of PQ scholarships in force in July 2023, by race/color and gender of the scholarship.



Distribution of PQ 1A scholarships in force in July 2023, by race/color and gender of the scholarship.



Distribuição por raça, sexo e grande área:



As bolsa PQ – Uma análise do PIS-2023 e CNPq



A situação do IFT-UNESP | ICTP-SAIFR

A disparidade de gênero também é uma realidade do IFT-UNESP e ICTP-SAIFR. Um rápido levantamento* de estudantes, pesquisadores, professores e funcionários mostra que a única categoria com predominância feminina é no corpo técnico-administrativo. No restante, a proporção de mulheres varia entre 7 e 12%.

Com 5 entre 41 de doutorandos, essa categoria tem a **maior** participação feminina (12%) fora do corpo técnico



Entre 19 docentes nas instituições, há 2 mulheres



Dos 13 pós doutorandos, apenas uma é mulher

Dos 14 funcionários em cargos técnico-administrativos, 9 são mulheres

Apenas quatro dos 44 estudantes de mestrado são mulheres



*Dados obtidos em outubro/2019 - site do IFT-UNESP

https://www.ictp-saifr.org/diversidade_stem/

Plano de Ação



Implement an explicit institutional equity policy, including the definition of goals and affirmative actions to increase the representation of historically underrepresented groups.

Ensure the appointment of members to the CAs considering diversity.

Review the general judgment criteria for awarding PQ scholarships. Inclusion of a mandatory rule for considering maternity in CV evaluation.

Plano de ação



Ensure a diverse composition, considering gender, race and regionality, in all CAS



Create EDI (Equity, Diversity and Inclusion) committees that promote awareness about existing inequalities in Brazilian academia and Science.




Make the process of evaluating PQ scholarship applications more transparent and accessible to all candidates, with clear information about the equity policies in force.



Public Calls

To encourage the presence of women in Science?

“Researchers with less than 12 years of PhD, who maintain an employment or functional relationship in Science and Technology Institutions (ICTs) based in the State of..... Candidates must be part of the permanent body or be collaborators of a Postgraduate Program approved by Capes (with grades 4, 5, 6 or 7) and are supervising or co-supervising a master's thesis or doctoral thesis in progress, and must also have at least one scientific initiation orientation”





- ✓ Notice of support for Young Researchers with and without employment contracts;
- ✓ Joint call from FAPs and private sectors aimed at supporting young black and indigenous scientists with and without employment with Science and Technology Institutions.
- ✓ Goal or duty?
- ✓ Promote actions aimed at correcting inequalities that make the careers of researchers who coordinate or in some way take part in scientific and technological research projects in national institutions more arduous (from scientific initiation to more advanced projects).
- ✓ Suggestions?





Actions

In adherence to recent initiatives by national and international movements in support of maternity policies in science, (failing to include affirmative actions) the FAP..., since, started granting maternity leave to researchers included in all types of scholarships granted by the Foundation, in line with the recommendations of other Brazilian agencies that promote Science, Technology and Innovation.

Another action by the Foundation was the inclusion, in the notices released, of the extension of the period for evaluating scientific productivity in the case of birth or adoption of children in the five years prior to submission.

As of this new notice, new maternity support policies are being adopted. In the proposals presented by researchers who became mothers in the last ten years, the FAP... will extend the period considered in the assessment of productivity by two years, going from five to seven years.

In addition, the PhD limit time for mother scientists will also be increased by two years.



The Call - Science For Them: Promoting Female Participation in Science, Innovation and International Collaboration seeks to stimulate plurality, diversity and internationalization, through the promotion of scientific and technological research projects coordinated exclusively by women, in different areas of knowledge .

The initiative will allocate R\$15 million to approved proposals.

[\(http://www.fapemig.br/pt/noticias/948/\)](http://www.fapemig.br/pt/noticias/948/)

Stimulate plurality, diversity and internationalization, by encouraging scientific and technological research projects coordinated exclusively by women, in different areas of knowledge.

Promote affirmative actions that encourage gender equality (failed to include race) in the context of science, technology and innovation;

Encourage the development and internationalization of research led by women (how many are research leaders and have this recognition?) in the State;



Generate knowledge through the diversity of supported research projects;

Leverage scientific and technological production, primarily in strategic areas for the development of the State;

**Expand the lines of research and the number of researchers;
Consolidate the State Science and Technology System.**

Publish data regarding the impacts of this call!!!





**EDITAL FAPES No 14/2022
MULHERES NA CIÊNCIA**

Public call for selection of research, technological development and/or innovation projects, in different areas of knowledge and coordinated by researchers.

Promote affirmative actions that encourage equality between genders, in accordance with the State Policy Plan for Women, which appoints Fapes as a partner in taking actions.

Promote and increase the role of women as coordinators of research, technological development and/or innovation projects.

Stimulate the development of research led by women in the state.

Encourage the consolidation of researchers in HEIs/;

Contribute to the production of technical-scientific knowledge;

Stimulate the internalization of research in the state;

Contribute to scientific, technological development and innovation in the state.





MCTI e CNPq vão lançar edital de R\$ 100 milhões para estimular o ingresso de mulheres na ciência

Public call for Girls in Exact Sciences, Engineering and Computing will support projects that encourage the entry and training of girls in these careers

(08/03/2023

-

[https://www.gov.br/cnpq/pt-br/assuntos/noticias/cnpq-em-acao/mcti-e-cnpq-vao-lancar-edital-de-r-100-milhoes-para-estimular-o-ingresso-de-mulheres-na-ciencia\)](https://www.gov.br/cnpq/pt-br/assuntos/noticias/cnpq-em-acao/mcti-e-cnpq-vao-lancar-edital-de-r-100-milhoes-para-estimular-o-ingresso-de-mulheres-na-ciencia)

This call improves CNPq's initiatives to encourage the inclusion of girls in science, with two previous calls launched, in 2013 and 2018, covering 450 projects.

Target audience female students, enrolled in high school, including Youth and Adult Education (EJA), in addition to undergraduate students.

Projects must be carried out through networks formed by at least three researchers, preferably women, linked to different types of institutions.

(<https://www.gov.br/cnpq/pt-br/assuntos/noticias/cnpq-em-acao/mcti-e-cnpq-vao-lancar-edital-de-r-100-milhoes-para-estimular-o-ingresso-de-mulheres-na-ciencia>)

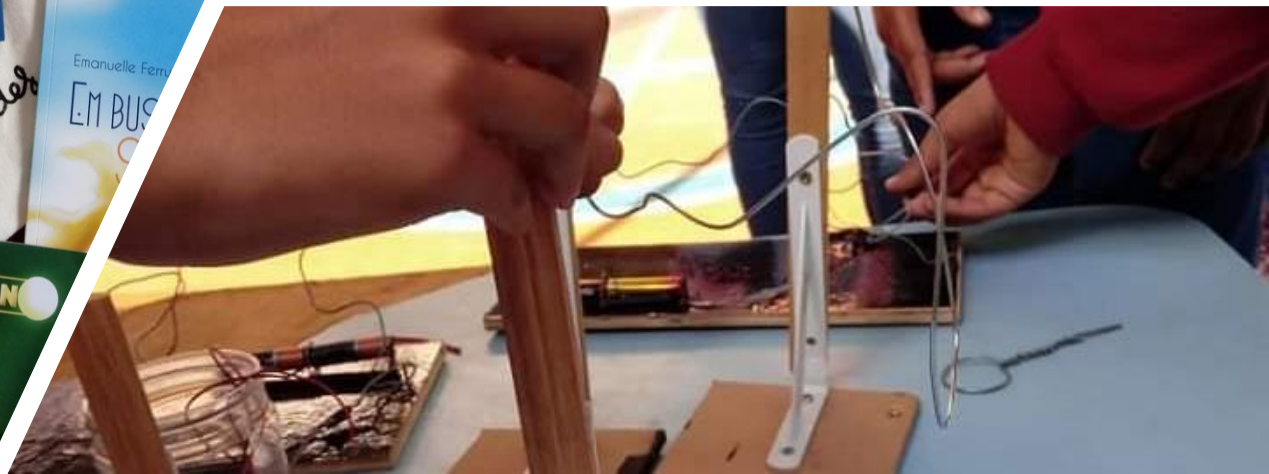


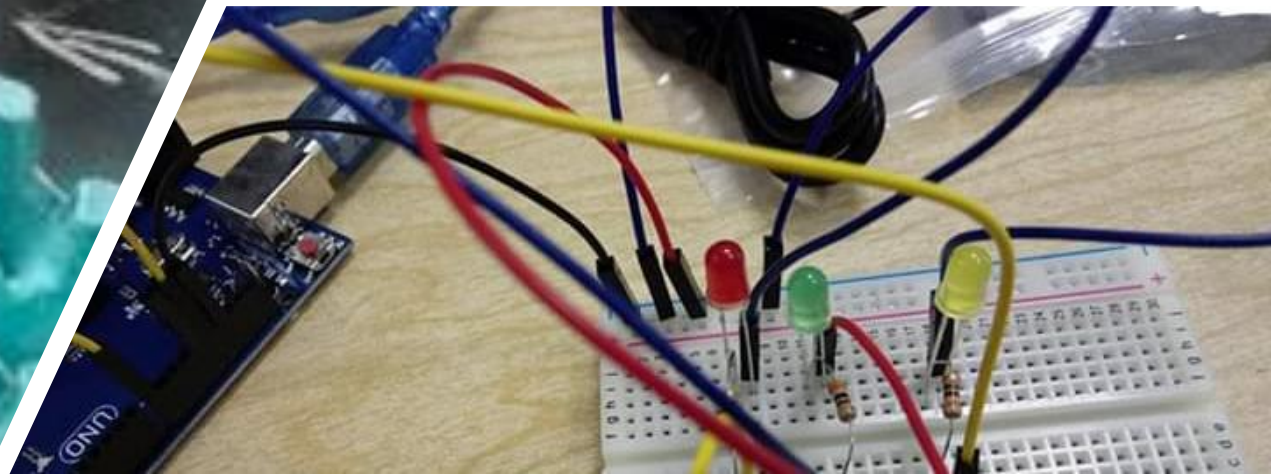
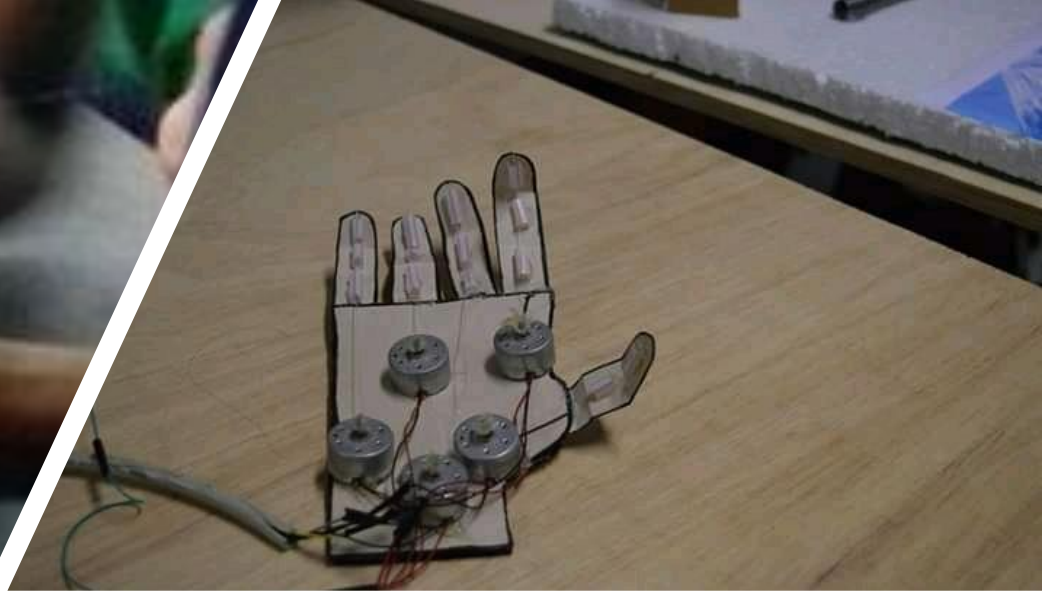
Each project may request a maximum of R\$1 million.

The call provides that at least 30% of scholarships must be allocated to black and/or indigenous girls. The selected projects will receive funding for funding, in addition to scholarships for high school students, undergraduate students and participating teachers for a period of 36 months.

(<https://www.gov.br/cnpq/pt-br/assuntos/noticias/cnpq-em-acao/mcti-e-cnpq-vao-lancar-edital-de-r-100-milhoes-para-estimular-o-ingresso-de-mulheres-na-ciencia>)









Núcleo de Apoio à Inclusão NAI-UFJF

The Inclusion Support Center – NAI UFJF
is a center linked to the Affirmative
Actions Board.

Objective of building and implementing
affirmative action policies for people with
disabilities, Autism Spectrum Disorder
(ASD), High Abilities and Giftedness within
the scope of undergraduate and
postgraduate courses at
UFJF. (<https://www2.ufjf.br/nai/>)



Diretoria de Ações Afirmativas- UFJF

Objective to promote and implement policies to promote equality and the recognition of differences and diversities Superior (IFEs), was part of a global inclusion policy, which took into account socioeconomic and ethnic conditions.

(<https://www2.ufjf.br/diaaf/>)



Diretoria de Ações Afirmativas- UFJF

Monitoring of groups of quota student students; care and action in the field of physical and psychological accessibility for people who are part of the University; the awareness and mobilization of the university community towards civic and social coexistence with the different realities present in social diversity (related to gender and sexuality, cultural tradition, ethnicity and socioeconomic vulnerability);

(<https://www2.ufjf.br/diaaf/>)



Obrigada! Gracias Thanks

zamadaludwig@gmail.com
GSCNano-UFJF



CREDITS: This presentation template was created by [Slidesgo](#), and includes icons by [Flaticon](#), and infographics & images by [Freepik](#)

